

THE OLD WORLD MEMBRACIDÆ

BY FREDERIC W. GODING

(Continued from Vol. LVII, p. 192)

- 14(13). Indigo black, no median carina on metopidium, suprahumeral sub-straight, posterior process impinging upon scutellum; tegmina almost colorless, base, costal and radial cells, and apical area piceous; 8-8.5 × 6-6.5 mm. **obesus**
- 15(12). Suprahumeral broad, sides parallel, tips obtuse almost roundly truncate; pronotum bluish black.
- 16(17). Tips of suprahumeral slightly curved upwardly and recurved; tegmina pale yellow, base and costal cell black, apical area bronze brown; 10 × 7 mm. **perarmatus**
- 17(16). Tips of suprahumeral straight or slightly decurved; tegmina lurid, base and costal margin piceous, apical margin partly colorless, tarsi ferruginous; 8 × 5.5 mm. **malleolus**
- 18(11). Black, strongly bulbously elevated, seen from front broadened upwardly, inferior margin of suprahumeral distant from eyes tips acute, posterior process not touching tegmina; tegmina smoky hyaline, base black, costal and apical areas reddish bordered with brown; 10 × 7.2 mm. **bulbifer**

LIST OF SPECIES

- bakeri** Funkhouser, Phil. Jour. Sci. x, p. 381, pl. 1, fig. 7. (1915). Iligan, Mindanao, Philippines.
- occidentalis** Goding, Mon. Aust. Memb. p. 27. (1903). Swan R., West Australia.
- ansatus** Buckton, Mon. Memb. p. 239, pl. 54, fig. 7. (1903). Mt. Alexander, New Guinea.
- bicornis* Funkhouser, Rec. Aust. Mus. xv, p. 305, pl. 26, figs. 1, 2. (1927). Elanagora, Koitaki, British New Guinea.
- rugosus** Funkhouser, Phil. Jour. Sci. xxxiii, p. 111, pl. 2, figs. 7, 8. (1927). Sibuyan Is., Philippines.
- globosus** Funkhouser, Phil. Jour. Sci. xviii, p. 683, pl. 1, figs. 5, 6. (1921). Dapitan, Mindanao, Philippines.
- agnatus** Distant, Ann. Mag. N. H. xvii, p. 319. (1916). Chantaboun, Siam.
- obesus** Fairmaire, Rev. Memb. p. 518. (1846). Java.
- malleator* Walker, List Hom. B. M. p. 612. (1851). Java.
- malleus* Walker, List Hom. B. M. p. 613. (1851); Distant, Faun. Brit. Ind. iv, p. 37, fig. 29. (1908); Funkhouser, Biol. Memb. pl. 34, fig. 12. (1917). Kalutara, Ceylon; Castle Rock, N. Kanara, Bombay, India.

- tumescens* Buckton, Mon. Memb. p. 256, pl. 59, fig. 6. (1903). Samarang, Java.
- perarmatus* Distant, Faun. Brit. Ind. vi, App. p. 156, fig. 114. (1916). Trichur, Cochin State, British India.
- malleolus* Walker, List Hom. B. M. p. 614. (1851). Java.
- bulbifer* Funkhouser, Bul. Brook. Ent. Soc. xxii, p. 106, pl. 6, figs. 1-3. (1927). Lubuksikaping, Sumatra.

Crito

- Distant, Ann. Mag. N. H. xviii, p. 43. (1916); *Acanthuchus* Kirkaldy, Rept. Exp. Sta. Haw. S. P. Assoc. Bul. 111, p. 89. (1907), part.

KEY TO SPECIES

- 1(6). Suprahumeral horizontal, very short.
- 2(5). Tegmina pale yellow hyaline, base, costal and radial cells darker.
- 3(4). Brown, head, body, base of metopidium, median carina, and apex of posterior process black, the latter tectiform from middle of pronotal disk and slightly shorter than tegmina; ocelli nearer to eyes; $3-5 \times 1.2$ mm. *minutus*
- 4(3). Entirely fuscous, posterior process long as tegmina; ocelli equidistant; 4×2 mm. *interpositus*
- 5(2). Tegmina bronze subhyaline, apical third pale brown, apical margin purplish brown; piceous, legs pale ochraceous, tips suprahumeral acute, posterior process shorter than tegmina; ocelli equidistant; $5-6 \times 3$ mm. *festivus*
- 6(1). Suprahumeral moderately oblique, some longer, posterior process long as tegmina; reddish piceous, legs yellow ferruginous; tegmina ferruginous; ocelli slightly nearer to eyes; 5-6 mm. *iasis*

LIST OF SPECIES

- minutus* Goding, Mon. Aust. Memb. p. 28. (1903). Mosman's Bay, Clarence R., Tamworth, N. S. W.; South Australia.
- eurylene* Kirkaldy, Rept. Exp. Sta. Haw. S. P. Assoc. Bul. 111, p. 90. (1907). N. S. W., Australia.
- eurynomus* Kirkaldy, *ibid.* p. 91. (1907). Bundaberg, Queensland, Australia.
- bispinus* Kirkaldy, *ibid.* p. 91. (1907). Cairns, Brisbane, Queensland, Australia.
- interpositus* Buckton, (δ), Mon. Memb. p. 231, pl. 52, fig. 1a. (1903). Adelaide, S. Australia.
- festivus* Distant, Ann. Mag. N. H. xviii, p. 43. (1916). Queensland, Australia.
- interpositus* Buckton, (σ), Mon. Memb. p. 231, pl. 52, fig. 1. (1903). Adelaide, S. Australia.
- iasis* Kirkaldy, Rept. Exp. Sta. Haw. S. P. Assoc. Bul. 111, p. 90. (1907). Kuranda, Cairns, Queensland, Australia.

Acanthusus

Stål, Hemip. Afric. iv, p. 87. (1866); *Acanthusus* Distant, Ann. Mag. N. H. xviii, p. 27. (1916).

KEY TO SPECIES

- 1(8). Suprahumerals directed more or less forward and oblique.
- 2(7). Posterior process shorter than tegmina; suprahumeral slightly inclined forward.
- 3(6). Posterior process straight apical half strongly decurved; not pubescent.
- 4(5). Greenish brown, rugose; suprahumeral straight, median carina foliaceous behind them, posterior process nearly long as tegmina; tegmina vinaceous hyaline, base and costal area yellow, opaque; 5.4 × 3 mm. **carinatus**
- 5(4). Ferruginous, legs yellow; suprahumeral lightly recurved, median carina angulate behind them, posterior process slightly longer than clavus; tegmina sordid hyaline, base, costa and apical spot ferruginous; 5 × 2.5 mm. **conspurcatus**
- 6(3). Posterior process strongly sinuate, almost long as tegmina, middle of dorsum bright yellow, apical third piceous brown, decurved; ferruginous, suprahumeral piceous brown, tips depressed; tegmina pale vinaceous hyaline, broad base and costal margin opaque dark ferruginous; 5 × 2.5 mm. **flavidorsus**
- 7(2). Head broader than long, strongly recurved below the eyes, base arched, brown, finely punctate; eyes pale yellow, globular, very prominent; ocelli vitreous, slightly nearer to and just above a line through center of eyes; margins of genæ sinuate, small lobule each side of clypeus which is long, narrow, tip rounded, well extended beneath. Pronotum piceous brown, finely punctate, not pubescent, median carina strongly percurrent; metopidium vertical; humeral large, prominent; suprahumeral medium, tricarinate, flat, obliquely porrect, compressed, base broad, gradually acuminate, tips curved outwardly, transversely carinate, acute; posterior process slender, unicarinate, impinging upon the scutellum, a slight rounded dorsal node at base, straight, apical third testaceous, strongly decurved, longer than tegmina. Sides of scutellum exposed. Tegmina two and a half times longer than broad, finely wrinkled, vinaceous subhyaline, basal third and costal area dark brown, opaque, punctate, two unequal discoidal and five apical cells their veins oblique, apical angle acute; clavus slightly narrowed to obtuse apex, two veins the exterior vein curved to inner margin behind middle. Wings with four apical cells. Sides of chest and abdomen beneath densely white tomentose, legs simple, tibiae and tarsi yellow. Type, female; long. 6, lat. int. sum. corn. 3 mm. (*Tepper*). Coll. F. W. G. **proclivus**, new species

- 8(1). Suprahumeral transversely oblique or subhorizontal, not inclined forward.
- 9(18). Suprahumeral oblique, posterior process reaching or passing apex of clavus.
- 10(17). Dorsum of pronotum with one elevation on median carina, erect, angular or foliaceous, just behind suprahumeral.
- 11(16). Suprahumeral long as the intervening space.
- 12(15). Dorsal crest triangular, size variable, base broad as high, suprahumeral recurved; pubescent, legs ferruginous.
- 13(14). Yellow brown; ocelli near eyes; dorsal very large, much higher than tips of suprahumeral, gradually passing into the posterior process, the latter thick, heavy, tip lightly decurved; tegmina hyaline, base opaque brown; 7×4 mm. ... **pyramidatus**
- 14(13). Black; ocelli equidistant; dorsal crest very small, high as tips of suprahumeral, posterior process straight, slender, thickest at middle, tip lightly elevated; tegmina smoky hyaline, extreme base opaque; 7.5×3.5 mm. **minutispinus**
- 15(12). Dorsal crest moderately long, slender, erect, tips suprahumeral decurved, posterior process distinctly sinuate, apical area decurved; pronotum ferruginous; tegmina hyaline, base and tips ferruginous; 5.5×2.5 mm. **gracilispinus**
- 16(11). Suprahumeral less than half as long as the intervening space, dorsal crest a very small foliaceous elevation of median carina, posterior process slightly separated from the scutellum, strongly sinuate, apical area decurved; ocelli nearer to eyes; reddish brown, distal half of tibiae whitish yellow; tegmina hyaline, basal third, irregular transverse fascia beyond middle and apical angle brown; 6×2 mm. **brevicornis**, new species
- 17(10). Dorsum of posterior process with two high acute erect spines, one behind suprahumeral, another at middle; ferruginous, tips of suprahumeral black, abdomen reddish or yellowish; tegmina pale fawny; 6×4 mm. **rufiventris**
- 18(9). Suprahumeral subhorizontal, median carina with one elevation, foliaceous, angulate or produced in a spine just behind bases of suprahumeral.
- 19(22). Posterior process almost as long as tegmina, dorsum gibbously elevated in a rather large compressed crest, basal area concave, apical half convex; suprahumeral long as the intervening space; ocelli equidistant.
- 20(21). Piceous, thickly pilose; suprahumeral with tips recurved; tegmina bronze, base and costal area piceous, pilose; $3.5-4 \times 2.5-3$ mm. **nivalis**
- 21(20). Reddish ochraceous, posterior process nearly to tip testaceous, tibiae and tarsi stramineous, median carina in front and margins suprahumeral black; tegmina bronze brown, subapical

costal spot and larger apical spot stramineous; 4×2.5 mm.

festivus

- 22(19). Apex of posterior process reaching or slightly passing apex of clavus, much shorter than tegmina, veins to apical cells irregularly curved.
- 23(26). Dorsal crest a slightly foliaceous or angular elevation of the median carina, not produced in a spine; suprahumeral very short.
- 24(25). Median carina elevated behind suprahumeral in a slight foliaceous crest, posterior process slightly sinuate; $4.5-5 \times 2.5-3$ mm.
- bispinus*
- 25(24). Median carina elevated behind suprahumeral in a small obtuse angle, posterior process strongly sinuate; piceous brown, yellow pubescent; ocelli near base and nearer to eyes; exterior discoidal cell almost touching costa; $3.5-4 \times 1-1.5$ mm. *kershawi*
- 26(23). Dorsal crest elevated in a strong acute spine; tips of suprahumeral recurved, lightly depressed, posterior process strongly sinuate; tegmina hyaline, base ferruginous; ferruginous brown; 6×3 mm. *trispinifer*

LIST OF SPECIES

- carinatus* Funkhouser, Rec. Aust. Mus. xv, p. 311, pl. 26, fig. 15. (1927). South Australia.
- conspurcatus* Stål, Bid. Memb. K. p. 288. (1869). West Australia; Tweed R., Blue Mts., N. S. W.; Mt. Wellington, Huon R., Tasmania; Victoria; South Australia.
- flavidorsus* Goding, Jour. N. Y. Ent. Soc. xxxiv, p. 244. (1926). Tweed R., N. S. W., Australia.
- proclivus* Goding, in this paper, supra, new species. South Australia.
- pyramidatus* Funkhouser, Rec. Aust. Mus. xv, p. 310, pl. 26, figs. 13, 14. (1927). Wedge Bay, Tasmania.
- minutispinus* Funkhouser, Rec. Ind. Mus. xxiv, p. 323, pl. 10, fig. 1. (1922). Sureil, Darjiling, E. Himalayas, India.
- gracilispinus* Stål, Bid. Memb. K. p. 289. (1869). Victoria; Tweed R., Clarence R., N. S. W.; North Australia; South Australia; Bunbury, W. Australia.
- brevicornis* Goding, in this paper, supra, new species. Bruni Is., Tasmania.
- trispinifer* Goding, Mon. Aust. Memb. p. 15. (1903), part. Bruni Is., Tasmania.
- rufiventris* Walker, List Hom. B. M. p. 616. (1851).; Goding, Mon. Aust. Memb. p. 14, pl. 1, fig. 13. (1903). Morton Bay, Queensland; S. Australia.
- nivalis* Distant, Ann. Mag. N. H. xviii, p. 28. (1916). Kuranda, Brisbane, Queensland, Australia.

- festivus** Distant, Ann. Mag. N. H. xviii, p. 28. (1916). Queensland, Australia.
- bispinus** Stål, Bid. Memb. K. p. 288. (1869). Homebush, Sydney, Tweed R., Clermont, Maitland, Mittagong, Richmond R., N. S. W.; Geraldton, Pinjarran, Swan R., W. Australia; Largs Bay, N. Mecklenburg, S. Australia; Victoria; Tasmania.
- obtusus* Kirkaldy, Rept. Exp. Sta. Haw. S. P. Assoc. ix, p. 377. (1906). Sydney, N. S. W., Australia.
- kershawi** Goding, Mon. Aust. Memb. p. 17. (1903). Thornleigh, Blue Mts., N. S. W., Australia.
- dromedarius* Kirkaldy, Rept. Exp. Sta. Haw. S. P. Assoc. iv, p. 377. (1906). Cairns, Brisbane, Queensland, Australia.
- trispinifer** Fairmaire, Rev. Memb. p. 515, pl. 7, fig. 35. (1846); Goding, Mon. Aust. Memb. p. 15, pl. 1, fig. 7. (1903), part; Buckton, Mon. Memb. p. 250, pl. 57, fig. 2. (1903). New Holland; Huon R., Hobart, Mt. Wellington, Tasmania; Tweed R., Gloucester, N. S. W.; Victoria; S. Australia.

Sertorius

Stål, Hemip. Afric. iv, p. 88. (1866).

KEY TO SPECIES

- 1(6). Posterior process as long or almost as long as tegmina, the latter vinaceous hyaline.
- 2(5). Costal area of tegmina concolorous hyaline; tips of suprahumeralis acute, recurved.
- 3(4). Posterior process long as tegmina, substraight, apical half abruptly narrowed, decurved; piceous black, legs ferruginous, tarsi piceous; female with brown spot near apex of clavus; 6-7 × 4-3 mm.
- australis**
- 4(3). Posterior process shorter than tegmina, gradually acuminate from base, suprahumeralis more slender and longer; entirely castaneous; 8 × 4.5 mm. **castaneus**
- 5(2). Tegmina subhyaline base and basal half of costal and radial cells black; tips suprahumeralis recurved, obtuse, posterior process a little shorter than tegmina; black, legs piceous; 6 × 3 mm.
- insularis**
- 6(1). Posterior process extended to or slightly beyond apex of clavus, much shorter than tegmina, apical half abruptly slender, decurved.
- 7(8). Base of posterior process straight; black, legs ferruginous; tegmina cinerous vitreous, base piceous; 7 × 3 mm. **obstans**
- 8(7). Base of posterior process slightly convex above scutellum; black, legs yellowish; tegmina vitreous; 8 × 4.75 mm. **hospes**

(to be continued)